



AGM TECHNOLOGY
ABT Enduro EFHP Series

EFTB12-50

12V 50Ah(10hr)

Complying standards:

IEC60896-21/22 2004,
JIS C8704-1/2 2006,
Bs6290-41997,
JIS C8702-1/2 2003,
Eurobat Guide,



High Performance

The ABT Enduro EFHP range of VRLA lead acid batteries have been designed specifically for use in applications which demand the highest levels of security and reliability. With proven compliance to the most rigorous international standards.

Enduro EFHP is recognized as premium battery for Telecom/IT, Power Utilities applications. Enduro's reputation for long service life combined with excellent high rate performance also makes it the number one choice for high integrity, high specification UPS systems. The Enduro EFHP front terminal monoblocs is compact design and standard footprint for 19" and 23" and ETST cabinet.

Mechanical Characteristics

	SI Unit	English Unit
Length	277mm	10.9inch
Width	105mm	4.13inch
Height	260mm	10.24inch
Total Height	260mm	10.24inch
Approx. Weight	17.8Kg	39.24lbs
Type of material for Box and lids : ABS Standard (FV0 Optional)		

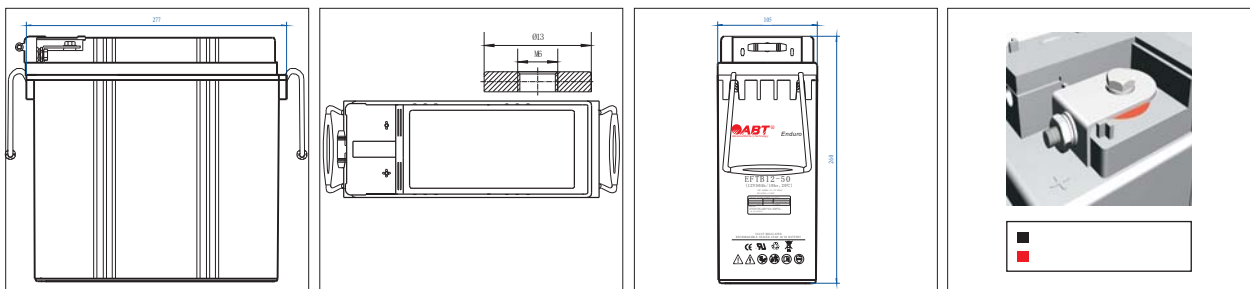
Product Characteristics

- Thick Pb-Ca-Sn alloy grids designed to resist corrosion and prolong life
- Low resistance microporous glass fibre separator
- Low specific acid density
- Centralized venting system for gas ventilation
- Flame arrestor to improve safety
- Rope handles for easy installation
- Pillar with brass insert where screwed an copper connector fitted with a bolt and stainless nut and washers
- Design life 12 years
- Low Self Discharge
- U. L. Component Recognition
- Six months shelf life at 20°C

Performance Characteristics

Nominal Voltage	12V
Number of Cell	6
Nominal Capacity 20°C (68°F)	20 hour rate (2.65A, 10.8V) 53Ah 10 hour rate (5.0A, 10.8V) 50Ah 1 hour rate (33.5A, 9.60V) 33.5Ah
Intensity	
Max. Discharge Current	20°C (68°F) 500A(5s)
Short circuit current	1400A
Maximum charge current	10A(20% of rated capacity)
Internal Resistance	Fully Charged battery 20°C (68°F) 8.93mOhms
Mass Energy(Wh/kg)	33.71
Volumic Energy(Wh/L)	79.34
Self-Discharge	3% of capacity declined per month at 20°C(average)
Operating Temperature Range	Discharge -20~60°C Charge -10~60°C Storage -20~60°C
Charge Methods:	Constant Voltage Charge 20°C (68°F) Cycle use 14.1-14.4V Temperature compensation -24mV/°C Standby use 13.5-13.74V Temperature compensation -20mV/°C
Terminal Type	Inserted Thread and bolt M6 ϕ 13
Torque strength in Nm	12~16
Handle Type	Rope

Dimensions / Terminal



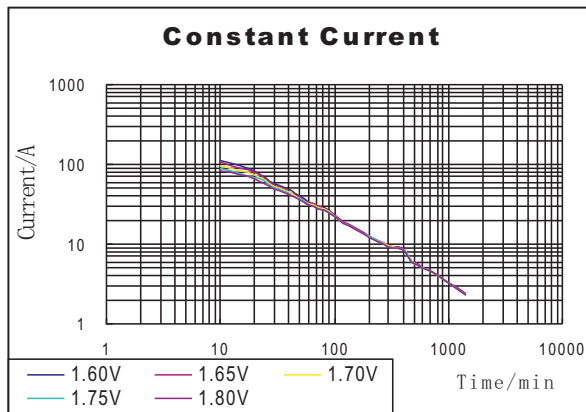
Constant Current Discharge Data (Amperes at 20°C/68°F)

End Volt. Per Cell	5min	10min	15min	20min	25min	30min	35min	40min	45min	50min	1h	1.5h	2h	2.5h	3h	4h	5h	6h	7h	8h	9h	10h	12h	24h
1.60v	160	120.0	96.0	83.0	69.9	56.9	52.5	48.2	43.8	40.4	33.5	26.3	19.0	16.4	14.0	11.2	9.25	7.65	6.75	6.10	5.55	5.05	4.32	2.35
1.65v	149	115.0	92.0	79.6	67.2	54.8	50.4	45.9	41.5	38.7	33.0	25.9	18.8	16.2	13.8	11.1	9.20	7.65	6.75	6.10	5.55	5.04	4.30	2.35
1.70v	137	110.0	88.0	76.4	64.9	53.3	49.1	44.8	40.6	37.8	32.2	25.4	18.5	16.0	13.7	11.0	9.15	7.60	6.70	6.05	5.50	5.03	4.30	2.33
1.75v	120	106.0	84.0	73.1	62.1	51.2	47.3	43.4	39.5	36.9	31.6	25.0	18.3	15.9	13.7	11.0	9.10	7.60	6.65	6.05	5.50	5.02	4.28	2.32
1.80v	108	100.0	80.0	69.7	59.3	49.0	45.5	42.0	38.5	36.1	31.2	24.7	18.2	15.8	13.6	10.9	9.05	7.50	6.60	6.00	5.45	5.00	4.25	2.29

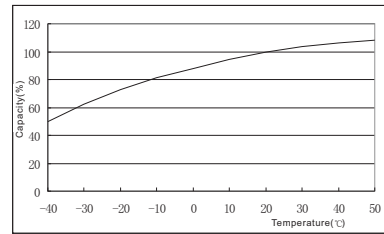
Constant Power Discharge Data (Watts per cell at 20°C/68°F)

End Volt. Per Cell	5min	10min	15min	20min	25min	30min	35min	40min	45min	50min	1h	1.5h	2h	2.5h	3h	4h	5h	6h	7h	8h	9h	10h	12h	24h
1.60v	259	211.3	168.1	147.3	126.5	105.6	96.5	87.3	78.1	74.2	66.3	47.0	37.1	31.3	27.5	22.4	19.2	16.4	14.1	12.6	11.3	10.3	8.75	4.50
1.65v	250	206.9	163.8	143.3	122.9	102.5	94.0	85.4	76.9	72.7	64.4	45.8	35.9	30.6	27.2	22.1	18.9	16.0	13.8	12.4	11.1	10.2	8.69	4.49
1.70v	239	202.5	159.4	139.6	119.8	100.0	91.7	83.3	75.0	71.3	63.8	45.1	35.4	30.2	26.8	21.8	18.5	15.8	13.6	12.4	11.1	10.1	8.69	4.48
1.75v	216	196.5	155.0	135.6	116.3	96.9	89.2	81.5	73.8	69.8	61.9	44.1	34.9	29.7	26.3	21.4	18.3	15.6	13.4	12.3	11.0	10.1	8.69	4.47
1.80v	199	191.4	152.0	131.3	112.5	93.8	86.5	79.2	71.9	67.9	60.0	43.3	34.3	29.3	25.9	21.1	18.0	15.4	13.3	12.2	10.9	10.0	8.69	4.45

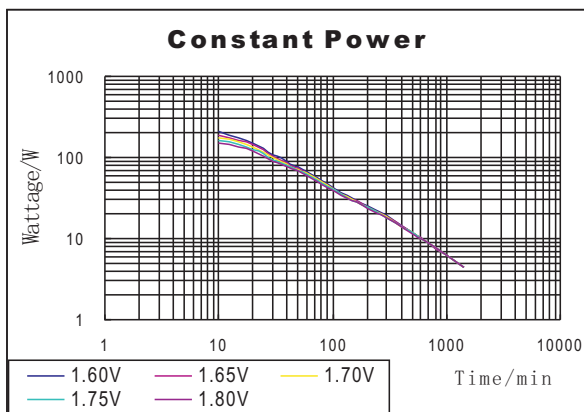
Constant Current Discharge Curve



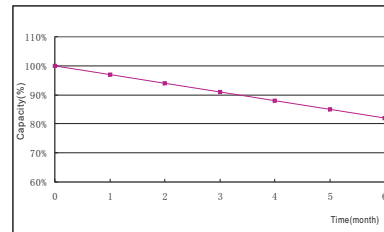
Capacity Vs Temperature



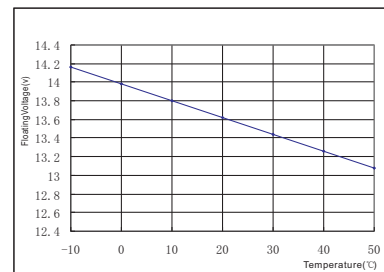
Constant Power Discharge Curve



Self Discharge



Floating Charge Voltage Vs Temperature



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ABT VRLA Battery: Available Power Range From 7Ah to 3000Ah

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